What Is Claimed Is:

1. An apparatus for detecting impact of a moving object (100), in particular of a vehicle, comprising:

a) a first sensor device (101) for acquiring an acceleration in an acquisition direction that is coincident with the direction of motion (X) of the moving object (100), and for outputting a first acceleration signal (201) dependent on the acceleration;

b) an evaluation device (301) for evaluating the first acceleration signal (201) in such a way that a classification of an impact is made available by a classification signal (203);

c) an output device (302) for outputting the classification signal (203) to external control devices;

wherein the apparatus for detecting impact further comprises:

d) at least one second sensor device (102a, 102b) for acquiring an acceleration in an acquisition direction (Y, Z) that is different from the direction of motion (X) of the moving object (100), and for outputting at least one second acceleration signal (202a, 202b) dependent on the acceleration;

e) the at least one second acceleration signal (202a, 202b) dependent on the acceleration being employed for evaluation, in the evaluation device (301), for evaluating the first acceleration signal (201), in such a way that a classification of an impact by way of the classification signal (203) as a function of accelerations in at least two directions of motion (X, Y, Z) is made available.

2. The apparatus as recited in Claim 1,
wherein the first sensor device (101) is implemented as an acceleration sensor.

3. The apparatus as recited in Claim 1,
wherein the evaluation device (301) has a rotation sensing unit (303) for determining a rotation of the moving object (100) and for outputting a rotation signal (205) dependent on the rotation.

4. The apparatus as recited in Claim 1,
wherein the evaluation device (301) has a first impact strength determination unit (304) for determining an impact strength in the acquisition direction that is coincident with the direction of motion (X) of the moving object (100), and for outputting a first impact strength signal (206).

5. The apparatus as recited in Claim 1,
wherein the evaluation device (301) has a second impact strength determination unit (305) for determining an impact strength in an acquisition direction that is in the direction of motion (X) of the moving object (100), and for outputting a second impact strength signal (207).

6. The apparatus as recited in Claim 1,
wherein the at least one second sensor device (102a, 102b) is implemented as an acceleration sensor.

7. The apparatus as recited in Claim 1, 2, or 6,
wherein the first (101) and second sensor devices (102a, 102b) are made available as a single two-dimensional acceleration acquisition unit.

8. The apparatus as recited in Claim 1, 2, or 6,
wherein the first (101) and second sensor devices (102a, 102b) are made available as a single three-dimensional acceleration acquisition unit.

9. The apparatus as recited in Claim 1,
wherein the first (101) and second sensor devices (102a, 102b) have acquisition axes (X, Y, Z) that are perpendicular to one another.

10. The apparatus as recited in Claim 1,
wherein the first sensor devices (101) are embodied in duplicate, and are disposed on the moving object with a lateral spacing (D) from one another.

11. The apparatus as recited in Claims 3, 4, and 5,
wherein the evaluation device (301) has a calculation unit (307) for calculating the classification signal (203) as a function of the rotation signal (205) and the first (206) and second impact strength signals (207).

12. The apparatus as recited in Claim 1,
wherein the evaluation device (301) has a correction unit (306) for correcting the first acceleration signal (201) by way of the at least one second acceleration signal (202a, 202b), and for outputting a corrected first acceleration signal (208).

13. A method for detecting an impact of a moving object (100), in particular of a vehicle, comprising the steps of:

a) acquiring an acceleration in an acquisition direction (X) that is coincident with the direction of motion of the moving object (100) using a first sensor device (101), and outputting from the sensor device (101) a first acceleration signal (201) dependent on the acceleration;

b) evaluating the first acceleration signal (201) in an evaluation device (301), in such a way that a classification of an impact is made available by way of a classification signal (203);

c) outputting the classification signal (203) to external control devices by way of an output device (302),

wherein

d) an acceleration in an acquisition direction (Y, Z) that is different from the direction of motion (X) of the moving object (100) is acquired by way of at least one second sensor device (102a, 102b), and is outputted as at least one second acceleration signal (202a, 202b) dependent on the acceleration;

e) the at least one second acceleration signal (202a, 202b) dependent on the acceleration being employed for evaluation, in the evaluation device (301) for evaluating the first acceleration signal (201), in such a way that a classification of an impact by way of the classification signal (203) as a function of accelerations in two directions of motion (X, Y) or in three directions of motion (X, Y, Z) is made available.

14. The method as recited in Claim 13,
wherein a rotation of the moving object (100) is determined in a rotation sensing unit (303) that is included in the evaluation device (301), a rotation signal (205) dependent on the rotation of the moving object being outputted from the rotation sensing unit.

15. The method as recited in Claim 13,
wherein an impact strength in the acquisition direction that is coincident with the direction of motion (X) of the moving object (100) is determined by way of a first impact strength determination unit (304) that is included in the evaluation device (301), a first impact strength signal (206) being outputted from the first impact strength determination unit (304).

16. The method as recited in Claim 13,
wherein an impact strength in an acquisition direction that is in the direction of motion (X) of the moving object (100) is determined by way of a second impact strength determination unit (305) that is included in the evaluation device (301), a second impact strength signal (207) being outputted from the second impact strength determination unit (305).

17. The method as recited in Claim 13,
wherein the classification signal (203) is calculated in a calculation unit (307) that is included in the evaluation device (301), as a function of the rotation signal (205) and the first (206) and second (207) impact strength signals.

18. The method as recited in Claim 13,
wherein the first acceleration signal (201) is corrected by way of the at least one second acceleration signal (202a, 202b) in a correction unit (306) that is included in the evaluation device (301), a corrected first acceleration signal (208) being outputted from the correction unit (306).

19. The method as recited in Claim 14,
wherein the rotation of the moving object (100) is determined, in the rotation sensing unit (303) that is included in the evaluation unit (301), in such a way that the acceleration signals (201, 202a, 202b) of the individual acquisition directions (X, Y, Z) are accumulated.

20. The method as recited in Claim 14,
wherein switchover to a fallback level occurs if an acceleration acquired by the at least one second sensor device (102a, 102b) in an acquisition direction (Y, Z) that is different from the direction of motion (X) of the moving object (100) exceeds a predetermined proportion of the acceleration acquired by the first sensor device (101) in an acquisition direction that is coincident with the direction of motion (X) of the moving object (100).